CLAIMS

1. (Currently Amended) A method of optimizing reconnection of a point to point protocol link layer in a mobile device comprising the steps of:

initializing a stabilization counter;

monitoring whether the mobile device has entered a new zone from an original zone;

~~starting a stabilization period when the mobile device enters a new zone;~~

after the monitoring step has determined that the mobile device has entered a new zone, incrementing said stabilization counter and determining whether said stabilization counter equals a maximum value ~~after said incrementing step~~, and if ~~so~~ the stabilization counter equals the maximum value, then ~~canceling said stabilization period and~~ performing ~~a~~ reconnection of the point to point protocol link layer;

starting a stabilization period;

setting a stabilization timer for said stabilization period;

checking whether the mobile device enters a different zone during the stabilization period;

if the mobile device enters a different zone during the stabilization period, ~~restarting~~ ending the stabilization period, resetting the stabilization timer and performing said incrementing, determining, starting, setting and checking steps; and

if the stabilization period ends and the mobile device ~~does~~ has not entered a different zone ~~during the stabilization period~~, determining whether the mobile device is in a new zone or said original zone, ~~reconnecting~~ and if the mobile device is in said new zone, performing reconnection of the point to point protocol link layer to the new zone ~~if the mobile device is in~~

~~the new zone, and~~ otherwise <u>if the mobile device is in said original zone</u>, performing no reconnection <u>of the point to point protocol link layer</u> ~~if the mobile device is in the original zone~~.

2. (Original) The method of claim 1, wherein said monitoring step looks for a change in a system identifier.

3. (Original) The method of claim 1, wherein said monitoring step looks for a change in a network identifier.

4. (Original) The method of claim 1, wherein said monitoring step looks for a change in a packet zone identifier.

5. (Original) The method of claim 1, wherein said starting step includes setting a stabilization timer.

6. (Original) The method of claim 5, wherein the duration of said stabilization timer is less than one minute.

7. (Original) The method of claim 5, wherein the duration of said stabilization timer is more than one minute.

8-13 (Cancelled)

14. (Currently Amended) The method of claim 1, wherein said method further comprises the steps of:

after said monitoring step has determined that the mobile device has entered a new zone, initializing a max return counter ~~after said monitoring step finds the mobile device has entered a new zone~~;

during said checking step, after it is determined that the mobile device entered a different zone, testing whether the mobile device is in said original zone ~~after a different zone is detected during said checking step~~;

if said mobile device is in said original zone, incrementing the max return counter and determining whether the max return counter has reached a threshold level and if said max return counter has reached a threshold level, canceling the stabilization period and performing a reconnection in said original zone.

15. (Currently Amended) The method of claim 1, wherein said method further comprises the steps of:

after said monitoring step has determined that the mobile device has entered a new zone, initializing and starting a countdown timer ~~after said monitoring step finds the mobile device has entered a new zone~~;

during said checking step, after it is determined that the mobile device entered a different zone, testing whether the mobile device is ~~back in an~~ said original zone ~~after said different zone is detected during said checking step~~;

-4-

if said mobile device is in said original zone, determining whether said countdown timer has expired, and if said countdown timer has ~~expired~~ expired, canceling the stabilization period and performing a reconnection in said original zone.

16. (Currently Amended) The method of claim 15, further comprising the steps of:

determining whether said countdown timer has expired if said checking step finds said mobile device is not in said different zone,

if said countdown timer has expired, checking whether said mobile device is in said original zone, and if ~~yes~~ said mobile device is in said original zone, canceling said stabilization period and performing ~~a~~ reconnection of the point to point protocol link layer.

17. (Currently Amended) The method of claim 14, wherein said method further comprises the steps of:

initializing and starting a countdown timer after said monitoring step finds the mobile device has entered a new zone;

if said mobile device is in said original zone after said testing step, determining whether said countdown timer has expired, and if said countdown timer has ~~expired~~ expired, canceling the stabilization period and performing a reconnection in said original zone.

18. (Currently Amended) The method of claim 17, further comprising the steps of:

determining whether said countdown timer has expired if said checking step finds said mobile device is not in said different zone[[.]]; and

if said countdown timer has expired, checking whether said mobile device is in said original zone, and if yes canceling said stabilization period and performing ~~a~~ reconnection of the point to point protocol link layer.

19. (Currently Amended) A method of optimizing reconnection of a point to point protocol link layer in a mobile device comprising the steps of:

monitoring whether the mobile device has entered a new zone from an original zone;

after said monitoring step has determined that the mobile device has entered a new zone, initializing a max return counter ~~after said monitoring step finds the mobile device has entered a new zone~~;

starting a stabilization period ~~when the mobile device enters a new zone~~;

setting a stabilization timer for said stabilization period;

checking whether the mobile device enters a different zone during the stabilization period;

after said checking step has determined that the mobile device enters a different zone, testing whether the mobile device is in said original zone ~~after a different zone is entered during said checking step~~ and, if said mobile device is in said original zone, incrementing the max return counter and determining whether the max return counter has reached a threshold level and if said max return counter has reached a threshold level, canceling the stabilization ~~period~~ timer and performing ~~a~~ reconnection of the point to point protocol link layer to said original zone;

if the mobile device enters a different zone during the stabilization period, restarting the stabilization period and performing said checking step ~~and testing steps~~; and

if ~~the stabilization period ends and~~ the mobile device ~~does~~ has not entered a different zone ~~during the stabilization period~~, determining whether the mobile device is in a new zone or said original zone, ~~reconnecting~~ and if the mobile device is in said new zone, performing reconnection of the point to point protocol link layer to the new zone ~~if the mobile device is in the new zone~~, and otherwise if the mobile device is in said original zone, performing no reconnection of the point to point protocol link layer ~~if the mobile device is in the original zone~~.

20. (Previously Presented) The method of claim 19, wherein said monitoring step looks for a change in a network identifier.

21. (Previously Presented) The method of claim 19, wherein said monitoring step looks for a change in a network identifier.

22. (Previously Presented) The method of claim 19, wherein said monitoring step looks for a change in a packet zone identifier.

23. (Previously Presented) The method of claim 19, wherein said starting step includes setting a stabilization timer.

24. (Previously Presented) The method of claim 23, wherein the duration of said stabilization timer is less than one minute.

25. (Previously Presented) The method of claim 23, wherein the duration of said stabilization timer is more than one minute.

26. (Currently Amended) The method of claim 19, wherein said method further comprises the steps of:

      initializing and starting a countdown timer after said monitoring steps finds the mobile device has entered a new zone;

      if said mobile device is in said original zone after said testing step, determining whether said countdown timer has expired, and if said countdown timer has ~~expired~~ expired, canceling the stabilization period and performing a reconnection to said original zone.

27. (Currently Amended) The method of claim 26, further comprising the steps of:

      determining whether said countdown timer has expired if said checking step finds said mobile device is not in said different zone,

      if said countdown timer has expired, checking whether said mobile device is in said original zone, and if ~~so~~ said mobile device is in said original zone, then canceling said stabilization period and performing ~~a~~ reconnection of the point to point protocol link layer.

28. (Currently Amended) A method of optimizing reconnection of a point to point protocol link layer in a mobile device comprising the steps of:

      monitoring whether the mobile device has entered a new zone from an original zone;

after said monitoring step has determined that the mobile device has entered a new zone, initializing and starting a countdown timer ~~after said monitoring step finds the mobile device has entered a new zone~~;

starting a stabilization period ~~when the mobile device enters a new zone~~;

setting a stabilization timer for said stabilization period;

checking whether the mobile device enters a different zone during the stabilization period;

after said checking step has determined that the mobile device enters a different zone, testing whether the mobile device is ~~back~~ in said original zone ~~after said different zone is entered during said checking step~~ and if said mobile device is in said original zone, determining whether said countdown timer has expired, and if said countdown timer has expired canceling the stabilization ~~period~~ timer and performing ~~a~~ reconnection of the point to point protocol link layer in said original zone;

if the mobile device enters a different zone during the stabilization period, restarting the stabilization period and performing said checking step ~~and testing steps~~; and

if the stabilization period ends and the mobile device ~~does~~ has not entered a different zone ~~during the stabilization period~~, determining whether the mobile device is in a new zone or said original zone, ~~reconnecting~~ and if the mobile device is in said new zone, performing reconnection of the point to point protocol link layer to the new zone ~~if the mobile device is in the new zone~~, and otherwise if the mobile device is in said original zone, performing no reconnection of the point to point protocol link layer ~~if the mobile device is in the original zone~~.

29. (Currently Amended) The method of claim [[10]] 28, further comprising the steps of:

determining whether said countdown timer has expired if said checking step finds said mobile device is not in said different zone,

if said countdown timer has expired, checking whether said mobile device is in said original zone, and if ~~yes~~ said mobile device is in said original zone, canceling said stabilization period and performing ~~a~~ reconnection of the point to point protocol link layer.

30. (Previously Presented) The method of claim 28, wherein said monitoring step looks for a change in a network identifier.

31. (Previously Presented) The method of claim 28, wherein said monitoring step looks for a change in a network identifier.

32. (Previously Presented) The method of claim 28, wherein said monitoring step looks for a change in a packet zone identifier.

33. (Previously Presented) The method of claim 28, wherein said starting step includes setting a stabilization timer.

34. (Previously Presented) The method of claim 33, wherein the duration of said stabilization timer is less than one minute.

35. (Previously Presented) The method of claim 33, wherein the duration of said stabilization timer is more than one minute.